

WHAT IS CLAIMED IS:

1. A cDNA sequence encoding a peptide produced and secreted by human prostate cancer cells and prostate cancer tissue, the cDNA sequence having substantial homology with a cDNA sequence selected from the group consisting of Sequence ID 2, Sequence ID 3, Sequence ID 4, and Sequence ID 5.

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B1

2. A peptide encoded by the cDNA sequence according to Claim 1, the peptide having substantial homology with a peptide selected from the group consisting of Sequence ID 1, Sequence ID 6, Sequence ID 7, Sequence ID 8, Sequence ID 9, Sequence ID 10, Sequence ID 11, and Sequence ID 12.

3. A composition comprising, the peptide of Claim 2, conjugated with at least two members selected from the group consisting of monoclonal antibodies, single chain antibodies, phage-display evolved antibodies, in-vitro evolved antibodies and aptamers, the at least two members bound to different epitopes of the peptide such that binding of the first member does not compromise binding of the second member.

4. A method for delivering at least one of a detectable label or cytotoxic agent to prostate cancer cells in humans comprising the steps of administering the peptide of Claim 2, conjugated with a detectable label or a cytotoxic agent, to a patient, and detecting the presence or absence of the detectable label in the patient, or treating the cancers cells.

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B2

5. A composition for treating prostate cancer, comprising the peptide of Claim 2, conjugated with a binding agent capable of inhibiting binding of the peptide to its receptor, thereby inhibiting an ability of the peptide to induce prostate cancer cell growth, the binding agent being selected from the group consisting of:

(a) an antibody selected from the group of monoclonal antibodies, partially or fully humanized monoclonal antibodies, polyclonal antibodies, antibodies selected by phage display selection, single chain antibodies, in-vitro-evolved antibodies or a synthetic antibodies capable of binding to the peptide;

- (b) a D-peptide sequence selected by mirror image phage display selection and capable of binding to the peptide;
- (c) a peptidomimetic compound capable of inhibiting binding of the peptide to prostate cancer cells;
- (d) an aptamer comprising DNA, RNA or other modified nucleoside analogs.

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B3